

Amendments To The Claims:

Please amend the claims as shown.

1 – 25 (canceled)

1

~~26.~~ (previously presented) A temperature resistant layered structure, comprising:
a substrate formed of metallic or ceramic material; and

a porous layer arranged on the substrate with an outer surface spaced away from the substrate, and having a plurality of pores formed therein with each pore defined by a wall, and a ceramic coating on an interior surface of the wall, the porous layer characterized by sizes of the pores decreasing as the layer extends toward the outer surface.

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~~27.~~ (previously presented) The layered structure of claim ~~26~~, wherein the layered structure is exposed to a temperature between 1000°C and 1600 °C.

28. (canceled)

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~~29.~~ (previously presented) The layered structure as claimed in claim ~~26~~, wherein the porous layer is in a foam or a sponge form.

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~~30.~~ (previously presented) The layered structure as claimed in claim ~~26~~, further comprising an intermediate layer interposed between the substrate and the porous layer.

31. (canceled)

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~~32.~~ (previously presented) The layered structure as claimed in claim ~~26~~, wherein the substrate and the porous layer comprise different materials.

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~~23.~~ (previously presented) The layered structure as claimed in claim ¹~~26~~, wherein the porous layer has a plurality of pores, each pore having the ceramic coating on the interior surface of the wall.

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~~24.~~ (previously presented) The layered structure as claimed in claim ¹~~26~~, wherein a ceramic coating is arranged on a surface region of the porous layer that is in contact with a hot working medium.

35. (canceled).

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~~28.~~ (previously presented) The layered structure as claimed in claim ¹~~26~~, wherein the porous layer is soldered, welded or adhesively bonded to the substrate, and the ceramic coating is applied to the pore by dip-coating, layer build-up or plasma spraying.

37 – 45 (canceled)

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~~46.~~ (currently amended) A temperature resistant layered structure, comprising:
a substrate formed of metallic or ceramic material; and
a porous layer arranged on the substrate with an outer surface spaced away from the substrate, and having a plurality of pores formed therein with each pore defined by a wall, and a ceramic coating on an interior surface of the wall, wherein the ceramic coating is ZrO₂, or Y₂O₄-ZrO₂, the porous layer characterized by sizes of the pores decreasing as the layer extends toward the outer surface.

47. (previously presented) A temperature resistant layered structure, comprising:
a substrate formed of metallic or ceramic material; and
a porous layer arranged on the substrate with an outer surface spaced away from the substrate, and having a plurality of pores formed therein with each pore defined by a wall, and a ceramic coating on an interior surface of the wall, and wherein the porous layer comprises $M\text{CrAlX}$, where M is selected from the group consisting of iron, cobalt or nickel, and X is the element yttrium and/or a rare earth element.